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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,999	03/19/2002	Takashi Toyofuku	Q67134	5637

7590 12/28/2005
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EXAMINER

PAPANIKOLAOU, ATHANASIOS T

ART UNIT PAPER NUMBER

2627

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/099,999

Applicant(s)

TOYOFUKU, TAKASHI

Examiner

Athanasios Tom Papanikolaou

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "image recording" in claim 1, line 8, is a relative phrase which renders the claim indefinite. The examiner is unable to clearly establish whether the invention stores an image in memory or outputs an image on a medium. The phrase "image recording" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The phrase "total amount of corresponding information" in claim 3, line 7, is a relative phrase which renders the claim indefinite. The examiner is unable to clearly establish what exactly is the total amount of corresponding image information. The phrase "total amount of corresponding information" is not defined by the claim, the

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specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5, 6, 8, 11, 12, 15, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rikima (U.S. Patent 5,918,088).

Regarding claim 1, Rikima discloses **an image recording device connected to image supplying devices by a network, the image recording device comprising (see Fig. 8): a receiving component which stores the image simultaneously and independently when receiving simultaneously a plurality of the image information from the image supplying devices (see Fig 9 and column 10, lines 40-55); and an image recording component which records an image based on image information (column 16, lines 13-17).**

Regarding claim 2, Rikima discloses the dependency of claim 1, as stated above, and further discloses **further comprising: an image recording instructing component which instructs the image recording component to record an image, based on the image information, in the order that the receiving component**

completed the storage of the plurality of image information when the image information has been received simultaneously from the image supplying devices (column 1, lines 14-38).

Regarding claim 5, Rikima discloses the dependency of claim 2, as stated above, and further discloses **further comprising: a related information adding component which adds additional information to related image information when the plurality of received image information relates to each other (column 12, lines 30-59); a related imaging designating component which instructs the image recording component to record an image by using consecutively the related image information to which the additional information has been added (column 12, line 65 through column 13, lines 9); and a designating/selecting component which selects one of the image recording instructing component and the related image processing instructing component (see Fig 14 and column 15, lines 17-30; the steps in Fig. 14 illustrate designating image data into groups of similar attributes and/or printing the image data).**

Regarding claim 6, Rikima discloses the dependency of claim 2, as stated above, and further discloses **further comprising: a related information adding component which adds additional information to related image information when the plurality of received image information relates to each other (column 12, lines 30-59); and a related image processing instructing component which instructs the image recording component to record an image by using consecutively the related image information to which the additional information has been added (column 12,**

line 65 through column 13, lines 9); **and the image information supplying device, which comprises a designating/selecting component which selects one of the image recording instructing component and the related image processing instructing component** (see Fig. 14 and column 15, lines 17-30; the selection of printing or grouping similar job attributes is embodied on a printer but can easily, by one skilled in art, be designed on an information supplying device like a workstation).

Regarding claim 8, Rikima discloses **an image recording system comprising: a plurality of image supplying devices; and an image recording device connected to the plurality of image supplying devices via a network** (see Fig. 8); **the image recording device including: an image recording component which records an image based on image information** (column 16, lines 13-17); **a receiving component which stores the image information simultaneously and independently when receiving simultaneously the image information from the plurality of image supplying devices** (see Fig 9 and column 10, lines 40-55); **a selecting component which selects the image information which has been stored by the receiving component** (it is inherent to the system to have a unit which selects the stored image information); **and a designating component which designates the image recording component to record an image based on the image information selected by the selecting component** (column 16, lines 13-17; it is inherent to the system to have a unit inform the image recording device to record).

Regarding claim 11, Rikima discloses the dependency of claim 8, as stated above, and further discloses **further comprising: a related information adding**

component which adds additional information to related image information when the received image information relates to each other(column 12, lines 30-59); **a related imaging designating component which instructs the image recording component to record an image by using consecutively the related image information to which the additional information has been added;**(column 12, line 65 through column 13, lines 9); **a designating/selecting component which selects one of the designating component and the related imaging designating component** (see Fig 14 and column 15, lines 17-30; the steps in Fig. 14 illustrate designating image data into groups of similar attributes and/or printing the image data).

Regarding claim 12, Rikima discloses the dependency of claim 8, as stated above, and further discloses **further comprising: a related information adding component for adding additional information to the related image information when the image information received relates to each other** (column 12, lines 30-59); **and a related image processing instructing component for instructing the image recording component to record an image by using consecutively the related image information to which the additional information has been added** (column 12, line 65 through column 13, lines 9); **and the image information supplying device which comprises a designating/selecting component which selects one of the designating component and the related image processing instructing component** (see Fig. 14 and column 15, lines 17-30; the selection of printing or grouping similar job attributes is embodied on a printer but can easily, by one skilled in art, be designed on an information supplying device like a workstation).

Regarding claim 15, Rikima discloses **an image recording method for recording an image with an image system, which image system includes a plurality of image information supplying devices and an image recording device that are connected by a network (Fig. 8); the method comprising the steps of: storing the image information independently when a plurality of the image information is simultaneously sent from the image information supplying devices to the image recording device (Fig. 9 and column 10, lines 40-55); selecting the image information for which storage has been completed (it is inherent to the system to be able to select the stored image information); instructing the recording of an image based on the selected image information (it is inherent to the system to be able to instruct recording of an image which has been selected); and recording the instructed image (it is inherent to the system to be able to record the selected image).**

Regarding claim 19, Rikima discloses **an image recording method for recording an image with an image system, which image system includes a plurality of image information supplying devices and an image recording device, which are connected by a network (Fig. 8), the method comprising the steps of: (a) storing the image information independently when the plurality of image information is simultaneously sent from the image information supplying devices to the image recording device (Fig. 9 and column 10, lines 40-55); (b) adding additional information to related image information when the received image information relates to each other (column 12, lines 30-59); (c) giving instructions to record an image by using consecutively the related image information to which**

the additional information has been added (column 12, line 65 through column 13, lines 9); **and (d) recording the instructed image** (it is inherent to the system to be able to record the selected image).

Regarding claim 20, Rikima discloses the dependency of claim 19, as stated above, and further teaches **further comprising the steps of: (e) giving instructions to record an image by using the image information in the order that the storage of the image information in the step (a) was completed** (column 1, lines 14-38); **and (f) selecting which of the step (c) and the step (e) the instructed recording will be performed** (see Fig 14 and column 15, lines 17-30; the steps in Fig. 14 illustrate designating image data into groups of similar attributes and/or printing the image data)..

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 7, 9, 10, 13, and 16-18 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Rikima in view of Miura (U.S. Patent 5,844,694).

Regarding claim 3, Rikima discloses the dependency of claim 2, as stated above, but does not disclose expressly **further comprising: an image recording initiate instructing component which instructs the image recording component to record an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information stored in the receiving component to a total amount of the corresponding image information exceeds a predetermined threshold.**

However, Miura discloses **further comprising: an image recording initiate instructing component which instructs the image recording component to record an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information stored in the receiving component to a total amount of the corresponding image information exceeds a predetermined threshold** (column 3, line 66 through column 4, line 16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging apparatuses. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's device include recording an image when a threshold is met, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's device could record the contents of a receiving component, like a buffer, when it is near a certain capacity to regulate buffer space. Therefore, it would have been obvious to combine the teachings of Miura with the device of Rikima to obtain the invention in claim 3.

Regarding claim 4, Rikima discloses the dependency of claim 2, as stated above, but does not disclose expressly **further comprising: an image recording initiate instructing component which instructs the image recording component to record an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information to be received by the receiving component to a total amount of the corresponding image information exceeds a predetermined threshold.**

However, Miura discloses **further comprising: an image recording initiate instructing component which instructs the image recording component to record an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information *to be received* by the receiving component to a total amount of the corresponding image information exceeds a predetermined threshold** (column 3, line 66 through column 4, line 16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging apparatuses. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's device include recording an image when a threshold is met, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's device could record the contents in the receiving component, like a buffer, to allow sufficient memory for incoming image information. Therefore, it would have been obvious to combine the teachings of Miura with the device of Rikima to obtain the invention in claim 4.

Regarding claim 7, Rikima discloses the dependency of claim 1, as stated above, but does not disclose expressly **wherein the receiving component receives the plurality of image information by time sharing.**

However, Miura discloses **wherein the receiving component receives the plurality of image information by time sharing** (column 4, lines 12-16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging devices. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's device include receiving image information through time sharing, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's device could receive a plurality of data packets simultaneously, thus increasing processing speed. Therefore, it would have been obvious to combine the teachings of Miura with the device of Rikima to obtain the invention in claim 7.

Regarding claim 9, Rikima discloses the dependency of claim 8, as stated above, but does not disclose expressly **further comprising: an image recording initiate instructing component which instructs the image recording component to record an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information stored in the receiving component to a total amount of the corresponding image information exceeds a predetermined threshold.**

However, Miura discloses **further comprising: an image recording initiate instructing component which instructs the image recording component to record**

an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information stored in the receiving component to a total amount of the corresponding image information exceeds a predetermined threshold (column 3, line 66 through column 4, line 16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging apparatuses. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's system include recording an image when a threshold is met, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's system could record the contents of a receiving component, like a buffer, when it is near a certain capacity to regulate buffer space. Therefore, it would have been obvious to combine the teachings of Miura with the system of Rikima to obtain the invention in claim 9.

Regarding claim 10, Rikima discloses the dependency of claim 8, as stated above, but does not disclose expressly **further comprising: an image recording initiate instructing component which instructs the image recording component to record an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information to be received by the receiving component to a total amount of the corresponding image information exceeds a predetermined threshold.**

However, Miura discloses **further comprising: an image recording initiate instructing component which instructs the image recording component to record an image, based on the corresponding image information, when a ratio of an**

amount of the corresponding image information to be received by the receiving component to a total amount of the corresponding image information exceeds a predetermined threshold (column 3, line 66 through column 4, line 16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging apparatuses. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's system include recording an image when a threshold is met, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's system could record the contents in the receiving component, like a buffer, to allow sufficient memory for incoming image information. Therefore, it would have been obvious to combine the teachings of Miura with the system of Rikima to obtain the invention in claim 10.

Regarding claim 13, Rikima discloses the dependency of claim 8, as stated above, but does not disclose expressly **wherein the receiving component receives the plurality of image information by time sharing**.

However, Miura discloses **wherein the receiving component receives the plurality of image information by time sharing** (column 4, lines 12-16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging devices. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's system include receiving image information through time sharing, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's system could receive a plurality of data packets simultaneously, thus increasing processing speed.

Therefore, it would have been obvious to combine the teachings of Miura with the system of Rikima to obtain the invention in claim 13.

Regarding claim 16, Rikima discloses the dependency of claim 15, as stated above, but does not disclose expressly **further comprising the step of: giving instructions to record an image, based on the corresponding image information, when a ratio of an amount of the stored corresponding image information to a total amount of the corresponding image information exceeds a predetermined threshold.**

However, Miura discloses **further comprising the step of: giving instructions to record an image, based on the corresponding image information, when a ratio of an amount of the stored corresponding image information to a total amount of the corresponding image information exceeds a predetermined threshold** (column 3, line 66 through column 4, line 16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging apparatuses. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's method include recording an image when a threshold is met, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's device could record the contents of a receiving component, like a buffer, when it is near a certain capacity to regulate buffer space. Therefore, it would have been obvious to combine the teachings of Miura with the method of Rikima to obtain the invention in claim 16.

Regarding claim 17, Rikima discloses the dependency of claim 15, as stated above, but does not disclose expressly **further comprising the step of: giving instructions to record an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information to be sent to the total amount of the corresponding image information is no more than a predetermined threshold.**

However, Miura discloses **further comprising the step of: giving instructions to record an image, based on the corresponding image information, when a ratio of an amount of the corresponding image information to be sent to the total amount of the corresponding image information is no more than a predetermined threshold** (column 3, line 66 through column 4, line 16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging apparatuses. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's method include recording an image when a threshold is met, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's device could record the contents in the receiving component, like a buffer, to allow sufficient memory for incoming image information. Therefore, it would have been obvious to combine the teachings of Miura with the method of Rikima to obtain the invention in claim 17.

Regarding claim 18, Rikima discloses the dependency of claim 15, as stated above, but does not disclose expressly **wherein the storing step receives the plurality of the image information by time sharing.**

However, Miura discloses **wherein the storing step receives the plurality of the image information by time sharing** (column 4, lines 12-16).

Rikima and Miura are combinable because they are from the same field of endeavor namely data transfer and imaging devices. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's method include receiving image information through time sharing, as taught by Miura. The suggestion or motivation for doing so would have been that Rikima's device could receive a plurality of data packets simultaneously, thus increasing processing speed. Therefore, it would have been obvious to combine the teachings of Miura with the method of Rikima to obtain the invention in claim 18.

5. Claim 14 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Rikima in view of Hayasaki (U.S. Patent Application Publication 2005/0225790 A1).

Regarding claim 14, Rikima discloses the dependency of claim 8, as stated above, but does not disclose expressly **the image information supplying device comprising: a generating component which converts the image information to be sent into image information appropriate for recording by the image recording component.**

However, Hayasaki discloses **the image information supplying device comprising: a generating component which converts the image information to be sent into image information appropriate for recording by the image recording component.**

Rikima and Hayasaki are combinable because they are from the same field of endeavor namely data transfer and imaging devices. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have Rikima's method include an image supplying device to convert the image information into a format compatible with a receiving recording device, as taught by Hayasaki. The suggestion or motivation for doing so would have been that Rikima's method would allow an image supplying device the ability to alter the image information for a plurality of image recording devices, making the image supplying device more robust and flexible. Therefore, it would have been obvious to combine the teachings of Hayasaki with the method of Rakami to obtain the invention in claim 14.

Citation of Pertinent Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Hamamura et al. (U.S. Patent 6,567,120 B1) discloses storing image data independent of image information. Furthermore, first and second image information is correlated to determine storage of the image data.

Conclusion


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Athanasios Tom Papanikolaou whose telephone number is (571)272-7953. The examiner can normally be reached on 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Athanasios Tom Papanikolaou


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